



THE ENVIRONMENTAL SERVICES COMPANY

163548

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October 3, 1984

Mr. Robert E. Caron  
USEPA Region III  
Environmental Emergency Branch  
Curtis Building (3HW22)  
Sixth & Walnut Streets  
Philadelphia, PA 19106

RE: Contract #68-01-6893, Delivery Order #6893-03-015.

Dear Mr. Caron:

Please find enclosed analytical results for samples taken at the Malitovsky Drum site in Pittsburgh, Pennsylvania. The analysis on these samples was performed by O.H. Materials Co. in our main laboratory in Findlay, Ohio.

If you should have any questions or require any additional information, please do not hesitate to give me a call at our toll free number, 1/800-338-4508.

Sincerely,

Robert J. Ohneck  
Program Manager  
ERCS Zone I

d1b

Enclosure

ORIGINAL  
(Red)

pc: Lloyd Stauffer, Response Manager  
Patrick Flynn, EPA Contracting (letter only)  
Michael Zickler, Regional DPO, (letter only)  
File #2090-E34 .

EK0010-E50  
-2090-E34

COMPATIBILITY REPORT FOR  
PROJECT 2090-E34  
MALITOVSKY DRUM RECYCLING SITE  
SMALLMAN AND 36TH STREETS  
PITTSBURGH, PENNSYLVANIA

Submitted to:

Mr. Bob Caron  
USEPA Region III

O.H. Materials Co.

Keith Reichenbach  
Keith Reichenbach, Project Chemist

Project 2090-E34  
October 3, 1984

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AR100385

## INTRODUCTION

This report includes the summarization of methods of analysis and final compatibility groups for the drum samples taken at the Malitovsky Drum Recycling site. This analysis occurred the period of September 1 through September 26, 1984.

## COMPATIBILITY TESTING PROCEDURE

Compatibility testing was performed on the samples to separate and classify unknown chemicals into compatible groups. After compatibility screens were completed, the unknown chemicals were separated into the following classifications:

<u>Bulking Category</u>	<u>Category Description</u>
I	Nonflammable Solid
II	Nonflammable Organic Liquid
III	Flammable Liquid
IV	Flammable Solid
V	Aqueous Liquid
VI	PCB Contaminated Waste

## TESTING PROCEDURES

### Solubility Testing

#### Water Solubility

Each sample is checked for water solubility by placing 1 ml of the sample into a culture tube containing 1 ml of deionized water. The sample is thoroughly mixed and the following observations are noted:

1. Sample soluble in water; indicates inorganic or polar organic;
2. Sample partially soluble in water or forms emulsion in water; indicates slightly polar organic materials;
3. Sample insoluble in water and less dense than water; indicates nonhalogenated organic material;
4. Sample insoluble in water and more dense than water; (Red) indicates halogenated organic compound;
5. The evolution of gases or generation of heat indicates the sample is reactive with water;
6. The result is recorded.

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AR100386

### Hexane Solubility

Hexane solubility is performed by the same method except that instead of water, 1 ml of hexane is in the culture tube. The following observations are made:

1. Sample is soluble in hexane; indicates organic;
2. Sample insoluble in hexane; indicates the sample is inorganic or possible alcohol;
3. The result is recorded.

### Peroxide Tests

Peroxide tests are performed by placing 1 ml of the sample into a culture tube containing a peroxide test strip. The color changing from beige to gray or blue indicates the presence of peroxide. The result is recorded. This test is sensitive to 1 ppm.

### Oxidizer Tests

The oxidizer tests are performed by placing 1 ml of sample into a culture tube containing 1 ml of .1 normal sodium iodide or potassium iodide; and then adding three drops of starch solution. The starch solution is prepared by adding 5 grams of starch to 800 ml boiling water and diluting to 1 liter. The following observations are made:

1. Immediate dark blue color formed indicates a strong oxidizer;
2. A dark blue color formed in a half minute to one minute indicates a moderate oxidizer;
3. A light blue color formed over a half minute to one minute indicates a weak oxidizer;
4. No color change indicates nonoxidizer;
5. The results is recorded.

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(Red)

### pH Testing

The pH is measured on those samples which are soluble in water and insoluble in hexane.

1. The samples with a pH of less than 4 are classified as acids;
2. All samples with a pH greater than 4 and less than 10 are classified as neutrals;

3. A pH greater than 10 is a base;
4. The actual pH of the samples is recorded.

#### Cyanide Tests

All samples which are classified as neutrals or bases are checked for cyanide by a spot test with chloramine-T and pyridine barbituric acid.

1. One ml of sample will be placed in a test tube or three drops placed on a spot test;
2. If the sample has a pH greater than 10 (previous test), it will be neutralized with 10% HCl solution;
3. Three drops of chloramine-T will be added (1 drop if spot plate) and mixed;
4. Equivalent drops of pyridine-barbituric acid solution will be added and mixed;
5. After 1 minute, the color will be recorded;
  - Pink to red if 0.05 ppm or greater CN-
  - Faint yellow if blank

#### Reagents:

- Chloramine-T: dissolve 1.0 g in 100 ml water; prepare weekly;
- Pyridine/barbituric acid: 15 g of barbituric acid is added to a flask; just enough water will be added to make wet. Seventy-five ml of pyridine will then be added. Fifteen ml of HCl will be added, mixed, and cooled to room temperature. Then water will be added to 250 ml and mixed. The shelf life is 6 months in a cool, dark place.

Any positive cyanide spot test (ASTM 2036, 1979) is quantified with a specific ion electrode (sensitive to 10 ppm) using the following procedures: 1 ml of sample is diluted to 100 ml with deionized water. A scoop of cadmium carbonate is added to remove any sulfur interference. One ml of .01 molar solution of EDTA is added to remove any interfering metal ions. One ml of a 10 molar sodium hydroxide solution is added as an ionization stabilizer. Specific ion electrode is precalibrated with a 10 ppm cyanide standard. Specific ion electrode is placed in the sample and a reading of the cyanide content is taken upon stabilization, which takes 1 to 5 minutes. Entire test is positive for cyanide only if greater than 10 ppm by selective ion electrode method.

ORIGINAL  
(Red)

AR100388

## PCB SCREENING

### Organic Samples

Five samples were equally composited. The sample is thoroughly mixed and 1 ml of the composite sample is hydrolyzed using concentrated sulfuric acid. The hydrolyzed extract undergoes a cleanup using an appropriate adsorbent (Florisil, etc.) and is concentrated to 1 ml. PCB analysis is accomplished using a gas chromatograph (GC) equipped with a Hall electrolytic conductivity detector (HECD). If PCBs are present above TSCA standards factored by dilution in a composite, the individual samples are subsequently analyzed.

### Inorganic Samples

Five samples are equally composited. The sample is thoroughly mixed and extracted with an equal volume of a suitable solvent. One ml of the extract undergoes a cleanup procedure, as described above. The extract is concentrated to 1 ml and analyzed by GC-HECD. Again, if PCBs are present in the composite above TSCA standard factored by dilution, the individual samples are analyzed.

### Sulfide Test

Sulfide tests are performed by placing an aliquot of the sample into a culture tube, acidified using dilute HCl and saturating the sample with cadmium carbonate. The appearance of a black precipitate indicates the presence of sulfides.

### Organochlorine Tests

Organochlorine tests are performed using the Bielstein test. The test is performed by dipping a clean copper wire into the sample and passing the wire through a propane torch flame. The appearance of a green color in the flame indicates chlorine content of greater than 1%.

### Bench Scale Bulking Test

Following characterization of the samples, a bench scale bulk test will be conducted. The samples are bulk tested by slowly adding a small aliquot of each drum sample in the same classification group in the order the drums will be bulked on site. A 5-minute waiting period follows each addition, during which the bulked samples are monitored for any gas evolution or exothermic reaction. If a reaction occurs, the bulking test is repeated without the addition of the reactive sample. Upon completion of the bench scale test, the compatible groups are identified and the results are relayed to the site so safe bulking of the drums begin.

CRG/H  
10/11/91

AR100389

## Sample No. - Description

## No. - Comments

## Sightings

D1	Black Solid	9/1 0845 55	55	encl.	NA	NA	NA	NA	C17	<50
D2	Black & Black sludge	9/1 0845 55	55	encl.	NA	NA	NA	NA	C9	<50
D3	Black & Brown sludge	9/1 0845 55	55	encl.	NA	NA	NA	NA	C8	<50
4	Black Sludge	9/1 0845 55	55	encl.	NA	NA	NA	NA	C8	<50
5	Black Sludge	9/1 0845 55	55	encl.	NA	NA	NA	NA	C10	<50
6	Yellow Solid	9/1 0845 55	55	encl.	NA	NA	NA	NA	C10	<50
7	Black Sludge	9/1 0845 55	55	encl.	NA	NA	NA	NA	C10	<50
8	White Sludge	9/1 0845 55	55	encl.	NA	NA	NA	NA	C10	<50
9	Yellow- Amber sludge	9/1 0845 55	55	encl.	NA	NA	NA	NA	C10	<50
10	Black liquid	9/1 0845 55	55	encl.	NA	NA	NA	NA	C10	<50
11	Brown liquid	9/1 0845 55	55	encl.	NA	NA	NA	NA	C10	<50
12	Yellow Solid	9/1 0845 55	55	encl.	NA	NA	NA	NA	C10	<50
13	White Solid	9/1 0845 55	55	encl.	NA	NA	NA	NA	C10	<50
D14	Clear liquid / Black sludge	9/1 0845 55	55	encl.	NA	NA	NA	NA	C10	<50
D15	Black Sludge	9/1 0845 55	55	encl.	NA	NA	NA	NA	C10	<50
D16	Rusty liquid	9/1 0845 55	55	encl.	NA	NA	NA	NA	C10	<50
D17	Black and Grey liquid	9/1 0845 55	55	encl.	NA	NA	NA	NA	C10	<50
D18	White liquid	9/1 0845 55	55	encl.	NA	NA	NA	NA	C10	<50
D19	Black Sludge	9/1 0845 55	55	encl.	NA	NA	NA	NA	C10	<50
D20	Black Sludge	9/1 0845 55	55	encl.	NA	NA	NA	NA	C10	<50
D21	Black Sludge	9/1 0845 55	55	encl.	NA	NA	NA	NA	C10	<50
D22	Red Solid	9/1 0845 55	55	encl.	NA	NA	NA	NA	C10	<50
D23	Purple-Grey liquid	9/1 0845 55	55	encl.	NA	NA	NA	NA	C10	<50
D24	Yellow- Amber sludge	9/1 0845 55	55	encl.	NA	NA	NA	NA	C10	<50
D25	Clear liquid	9/1 0845 55	55	encl.	NA	NA	NA	NA	C10	<50
D26	Brown and black sludge	9/1 0845 55	55	encl.	NA	NA	NA	NA	C10	<50
D27	Black Sludge	9/1 0845 55	55	encl.	NA	NA	NA	NA	C10	<50
D28	Black Sludge	9/1 0845 55	55	encl.	NA	NA	NA	NA	C10	<50
D29	Black Sludge	9/1 0845 55	55	encl.	NA	NA	NA	NA	C10	<50
D30	Rest liquid	9/1 0845 55	55	encl.	NA	NA	NA	NA	C10	<50
D31	White Solid	9/1 0845 55	55	encl.	NA	NA	NA	NA	C10	<50
D32	White Sludge	9/1 0845 55	55	encl.	NA	NA	NA	NA	C10	<50
D33										

SAMPLE NO. NUMBER

ORIGINAL  
(Red)

Sample No.	Date	Location	Color	Consistency	Odor	Specific Gravity	pH	Conductivity	Temperature	Test Results								
										Alkalinity	Chloride	Sulfate	Nitrate	Phosphate	Ammonium	Total Solids	Oil Content	Crude Oil Content
D-34		Grey Black Sludge				1.040	5.6	1/4	45.44	NA	NA	NA	NA	NA	NA	NA	NA	C13 500 ppm Drum
D-35		Clear liquid				1.050	5.5	1/4	45.44	NA	NA	NA	NA	NA	NA	NA	NA	YES 150 176
D-36		Peach liquid				1.053	5.5	1/4	45.44	NA	NA	NA	NA	NA	NA	NA	NA	NO 150
P-37		Light Amber/milky white liquid				1.058	5.5	1/4	45.44	NA	NA	NA	NA	NA	NA	NA	NA	NO 150
D-38		Black Sludge				1.061	5.5	1/4	45.44	NA	NA	NA	NA	NA	NA	NA	NA	NO 150
D-39		Black Sludge - metal flecks				1.061	5.5	1/4	45.44	NA	NA	NA	NA	NA	NA	NA	NA	NO 150
D-40		Yellow liquid				1.070	5.5	1/4	45.44	NA	NA	NA	NA	NA	NA	NA	NA	NO 150
D-41		Black liquid				1.080	5.5	1/4	45.44	NA	NA	NA	NA	NA	NA	NA	NA	NO 150
D-42		Yellow Grease				1.080	5.5	1/4	45.44	NA	NA	NA	NA	NA	NA	NA	NA	NO 150
D-43		Clear Liquor/Black Tar				1.093	5.5	1/4	45.44	NA	NA	NA	NA	NA	NA	NA	NA	NO 150
D-44		Black Tar				1.094	5.5	1/4	45.44	NA	NA	NA	NA	NA	NA	NA	NA	NO 150
D-45		Black Tar				1.100	5.5	1/4	45.44	NA	NA	NA	NA	NA	NA	NA	NA	NO 150
D-46		Black Tar				1.103	5.5	1/4	45.44	NA	NA	NA	NA	NA	NA	NA	NA	NO 150
D-47		Black oil				1.105	5.5	1/4	45.44	NA	NA	NA	NA	NA	NA	NA	NA	NO 150
D-48		Black tar				1.105	5.5	1/4	45.44	NA	NA	NA	NA	NA	NA	NA	NA	NO 150
D-49		Black Liquor/Grey Sludge				1.105	5.5	1/4	45.44	NA	NA	NA	NA	NA	NA	NA	NA	NO 150
D-50		Black Liquor/Grey Sludge				1.107	5.5	1/4	45.44	NA	NA	NA	NA	NA	NA	NA	NA	NO 150
D-51		Black Tar				1.115	5.5	1/4	45.44	NA	NA	NA	NA	NA	NA	NA	NA	NO 150
D-52		Black Tar				1.120	5.5	1/4	45.44	NA	NA	NA	NA	NA	NA	NA	NA	NO 150
D-53		Black Tar				1.120	5.5	1/4	45.44	NA	NA	NA	NA	NA	NA	NA	NA	NO 150
D-54		Black oil/Grey Sludge				1.120	5.5	1/4	45.44	NA	NA	NA	NA	NA	NA	NA	NA	NO 150
D-55		Yellow Brown Gooey				1.120	5.5	1/4	45.44	NA	NA	NA	NA	NA	NA	NA	NA	NO 150
D-56		Black Tar				1.120	5.5	1/4	45.44	NA	NA	NA	NA	NA	NA	NA	NA	NO 150
D-57		Black Tar				1.121	5.5	1/4	45.44	NA	NA	NA	NA	NA	NA	NA	NA	NO 150
D-58		Black Tar				1.125	5.5	1/4	45.44	NA	NA	NA	NA	NA	NA	NA	NA	NO 150
D-59		Red Sludge				1.127	5.5	1/4	45.44	NA	NA	NA	NA	NA	NA	NA	NA	NO 150
D-60		Black Tar				1.130	5.5	1/4	45.44	NA	NA	NA	NA	NA	NA	NA	NA	NO 150
D-61		Black Tar				1.137	5.5	1/4	45.44	NA	NA	NA	NA	NA	NA	NA	NA	NO 150
D-62		Black Tar				1.139	5.5	1/4	45.44	NA	NA	NA	NA	NA	NA	NA	NA	NO 150
D-63		Black Tar				1.140	5.5	1/4	45.44	NA	NA	NA	NA	NA	NA	NA	NA	NO 150
D-64		Brown Sludge				1.140	5.5	1/4	45.44	NA	NA	NA	NA	NA	NA	NA	NA	NO 150
D-65		Black Tar				1.140	5.5	1/4	45.44	NA	NA	NA	NA	NA	NA	NA	NA	NO 150
D-66		No sample available				1.149	5.5	1/4	45.44	NA	NA	NA	NA	NA	NA	NA	NA	NO 150

ORIGINAL  
(Red)

39

2

Name	Specimen	Date	Time	Year	Locality	Collected by	Notes
DUT	Black Tan	P-1	1850	95	1/2	JL/6H	NP
DUG	Black Tan	P-1	1849	95	1/2	JL/6H	+
DUG	Black Tan	P-1	1849	95	1/2	JL/6H	NA
DUO	Dark Brown Slaty	P-1	1850	95	1/2	JL/6H	NA
DUO	Brown on / Tan	P-1	1852	55	1/2	JL/6H	+
DUA	Dark gray	P-1	1851	55	1/2	JL/6H	NA
DUA	Dark Slaty	P-1	1852	55	1/2	JL/6H	NA
DUA	Black Slaty	P-1	1853	55	1/2	JL/6H	NA
DUA	Black gray	P-1	1853	55	1/2	JL/6H	NA
DUA	Black gray	P-1	1854	55	1/2	JL/6H	NA
DUA	Amber green	P-1	1856	55	1/2	JL/6H	NA
DUA	Black Tan	P-1	1855	55	1/2	JL/6H	NA
DUA	Black Tan	P-1	1857	55	1/2	JL/6H	NA
DUA	Black gray	P-1	1857	55	1/2	JL/6H	NA
DUA	Crossvein/Black	P-1	1857	55	1/2	JL/6H	NA
DUA	Black Gray	P-1	1858	55	1/2	JL/6H	NA
DUA	No sample	P-1	1859	55	1/2	JL/6H	NA
DUA	Black gray	P-1	1859	55	1/2	JL/6H	NA
DUA	Black Tan	P-1	1859	55	1/2	JL/6H	NA
DUA	Dark Gray	P-1	1900	55	1/2	JL/6H	NA
DUA	Black Tan	P-1	1901	55	1/2	JL/6H	NA
DUA	Black Tan	P-1	1902	55	1/2	JL/6H	NA
DUA	Yellow Tan/Green	P-1	1902	30	1/2	JL/6H	NA
DUA	Black Tan	P-1	1904	55	1/2	JL/6H	NA
DUA	Solid Black Dotted	P-1	1905	55	1/2	JL/6H	NA
DUA	Red/Brown Green	P-1	1904	55	1/2	JL/6H	NA
DUA	Dark Green	P-1	1905	55	1/2	JL/6H	NA
DUA	Cave 1, 1900	P-1	1907	55	1/2	JL/6H	NA
DUA	No sample available	P-2	0701	55	1/2	JL/6H	NA
DUA	Dark Brown Green	P-2	0703	55	1/2	JL/6H	NA

Name	Specimen	Date	Time	Year	Locality	Collected by	Notes
DUA	Black Tan	P-1	1858	55	1/2	JL/6H	NA
DUA	Black gray	P-1	1859	55	1/2	JL/6H	NA
DUA	Black Tan	P-1	1859	55	1/2	JL/6H	NA
DUA	Dark Gray	P-1	1900	55	1/2	JL/6H	NA
DUA	Black Tan	P-1	1901	55	1/2	JL/6H	NA
DUA	Black Tan	P-1	1902	55	1/2	JL/6H	NA
DUA	Yellow Tan/Green	P-1	1902	30	1/2	JL/6H	NA
DUA	Black Tan	P-1	1904	55	1/2	JL/6H	NA
DUA	Solid Black Dotted	P-1	1905	55	1/2	JL/6H	NA
DUA	Red/Brown Green	P-1	1904	55	1/2	JL/6H	NA
DUA	Dark Green	P-1	1905	55	1/2	JL/6H	NA
DUA	Cave 1, 1900	P-1	1907	55	1/2	JL/6H	NA

ORIGINAL  
(Red)

AR 100392

ORIGINAL  
(Red)

ARI00393

ORIGINAL  
(Red)

ARI00394

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(Red)

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6

Sample Number.	Description	Date, Time	Size, mm	Weight, gm	Wear, cm	Wear, microns	Comments
D116	Black Grease	9-2	1623 55	<50	C37	<500	174
D117	Brown Grease	9-2	1625 55	<50	C37	<500	174
D118	Brown Solder	9-2	1629 55	<50	C34	<500	174
D119	Black Tack	9-2	1631 55	>50	C34	<500	174
D120	Black Grease	9-2	1633 55	>50	C34	<500	174
D121	Green Grease	9-2	1636 55	>50	C34	<500	174
D122	Black Grease	9-2	1639 55	>50	C34	<500	174
D123	Black Grease	9-2	1642 55	>50	C34	<500	174
D124	Black Grease	9-2	1650 55	>50	C34	<500	174
D125	Brown Grease	9-2	1830 55	>50	C35	<500	174
D126	Black Grease	9-2	1834 55	>50	C35	<500	174
D127	Black TAC	9-2	1840 55	>50	C35	<500	174
D128	Brown Grease	9-2	1841 55	>50	C35	<500	174
D129	Black Grease	9-2	1843 55	>50	C35	<500	174
D130	Black Solder	9-2	1845 55	>50	C35	<500	174
D131	Brown Grease	9-2	1846 55	>50	C35	<500	174
D132	White Solder	9-2	1848 55	>50	C35	<500	174
D183	Yellow solder	9-2	1850 55	>50	C35	<500	174
D184	Brown Grease	9-2	1853 55	>50	C35	<500	174
D185	Brown Solder	9-2	1856 55	>50	C35	<500	174
D186	Brown Grease	9-2	1859 55	>50	C35	<500	174
D187	Black Solder	9-2	1861 55	>50	C35	<500	174
D188	Black Grease	9-2	1863 55	>50	C35	<500	174
D189	Black Solder	9-2	1869 55	>50	C35	<500	174
D190	White Solder	9-3	0800 55	>50	C35	<500	174
D191	BLACK GREASE	9-3	0802 55	>50	C35	<500	174
D192	BLACK GREASE	9-3	0803 55	>50	C35	<500	174
D193	BLACK GREASE	9-3	0804 55	>50	C35	<500	174
D194	BLACK GREASE	9-3	0810 55	>50	C35	<500	174
D195	Black Grease	9-3	0811 55	>50	C35	<500	174
D196	Black Grease	9-3	0809 55	>50	C35	<500	174
D197	Black Grease	9-3	0812 55	>50	C35	<500	174
D198	Black Grease	9-3	0813 55	>50	C35	<500	174
D199	Black Grease	9-3	0814 55	>50	C35	<500	174

ORIGINATOR

SAMPLE NUMBER	DESCRIPTION	DETECTORS	CHARGE	COMMENTS
D232	WHITE SOLID	PS	IV	
D233	BROWN GREASE	NA Neg	I	17E
D234	BLACK GREASE	NA Neg	I	17W
D235	BLACK GREASE	NA Neg	I	17H PERKALENE 725
D236	BLACK GREASE	NA Neg	I	17H PERKALENE 725
D237	BLACK GREASE	NA Neg	I	17H PERKALENE 725
D238	BLACK GREASE	NA Neg	I	17H PERKALENE 725
D239	WHITE SOLID	NA Neg	I	17H PERKALENE 725
D240	NO SAMPLE (RAW)	PS	IV	
D241	YELLOW SOLID	PS	IV	
D242	BROWN LIQUID/GRAY LIQUID	PS	IV	
D243	NO SAMPLE (RAW)	PS	IV	
D244	BLACK SOLID	PS	IV	
D245	NO SAMPLE (RAW)	PS	IV	
D246	BLACK GREASE	PS	IV	
D247	BLACK GREASE	PS	IV	
D248	BLACK GREASE	PS	IV	
D249	BLACK GREASE	PS	IV	
D250	BLACK GREASE	PS	IV	
D251	BROWN LIQUID	PS	IV	
D252	BLACK GREASE	PS	IV	
D253	BLACK GREASE	PS	IV	
D254	RED SOLID	PS	IV	
D255	BLACK GREASE	PS	IV	
D256	BLACK TIN	PS	IV	
D257	SILVER METAL SOLID	PS	IV	
D258	BLACK TIN	PS	IV	
D259	NO SAMPLE (RAW)	PS	IV	
D260	CLEAR VITELLA LIQUID	PS	IV	
D261	NO SAMPLE (RAW)	PS	IV	
D262	WHITE SOLID	PS	IV	
D263	BLACK TIN	PS	IV	
D264	BLACK GREASE	PS	IV	

SAMPLE NUMBER	DESCRIPTION	WEIGHT	SIZE	SHAPE	MOISTURE	HEXANE	pH	PER OMC ON 5" x 5" FILTER	COMMENTS
D265	GRAY SOLID	9.3	1219	55	f	1/16	I	55	174
D266	BLACK GREASE	9.3	1216	55	c	1/16	I	55	174
D267		9.3	1217	55	1/4	1/16	I	55	174
D268	BROWN GREASE	9.3	1220	55	c	1/4	I	55	174
D269	BLACK GREASE	9.3	1225	55	f	1/16	I	55	174
D270	BROWN GREASE (METALLIC)	9.3	1230	55	f	1/16	I	55	174
D271	BLACK GREASE	9.3	1234	55	c	1/4	I	55	174
D272	BROWN GREASE	9.3	1240	55	c	1/4	I	55	174
D273	BLACK GREASE	9.3	1242	55	c	1/4	I	55	174
D274	NO SAMPLE (TRASH)	9.3	1247	55	c	1/4	I	55	174
D275	NO SAMPLE (TRASH)	9.3	1250	55	f	1/2	I	55	174
D276	YELLOW GREASE	9.3	1254	55	c	1/4	I	55	174
D277	WHITE SOLID	9.3	1256	55	c	1/4	I	55	174
D278	BLACK GREASE	9.3	1300	55	c	1/4	I	55	174
D279	BLACK GREASE	9.3	1305	55	f	1/4	I	55	174
D280	BLACK SLUDGE	9.3	1310	55	f	1/4	I	55	174
D281	WHITE SOLID	9.3	1313	55	f	1/4	I	55	174
D282	YELLOW BROWN GREASE	9.3	1317	55	c	1/4	I	55	174
D283	BLACK TAR	9.3	1324	55	c	1/4	I	55	174
D284	WHITE SEMI-SOLID	9.3	1330	55	c	1/4	I	55	174
D285	BLACK GREASE	9.3	1334	55	c	1/4	I	55	174
D286		9.3	1440	55	f	1/4	I	55	174
D287	BLACK TAR	9.3	1445	55	c	1/4	I	55	174
D288	BLACK LIQUID	9.3	1450	55	f	1/4	I	55	174
D289	BLACK GREASE	9.3	1456	55	c	1/4	I	55	174
D290	BLACK TAR	9.3	1460	55	c	1/4	I	55	174
D291	NO SAMPLE (TRASH)	9.3	1464	55	f	1/4	I	55	174
D292	BLACK GREASE	9.3	1470	55	f	1/4	I	55	174
D293	BROWN LIQUID/YELLOW LIQUID	9.3	1474	55	f	1/4	I	55	174
D294	BROWN GREASE	9.3	1479	55	f	1/4	I	55	174
D295	NO SAMPLE (TRASH)	9.3	1482	55	c	1/4	I	55	174
D296	BROWN GREASE	9.3	1486	55	c	1/4	I	55	174
D297	BLACK GREASE	9.3	1490	55	c	1/4	I	55	174

ORIGINAL  
(Red)

100% H<sub>2</sub>O + 100% C<sub>6</sub>H<sub>6</sub>

ORIGINAL  
(Red)

SAMPLE NUMBER	DESCRIPTION	DATE	SIZE	SHAPE	MO	HARDNESS	PH PER O&G CN S-2180	COMMENTS	CATEGORY
D298	BLACK GREASE	7-3	1434	SS F	TJ	W.	NA NA NA NA NA NA	<50	I
D299	WHITE SOLID	7-3	1440	SS 1/4	TJ	W.	NA NA NA NA NA NA	<50	I
D300	BLACK SOLID (SOIL)	7-3	1444	SB F	TJ	HS	NA NA NA NA NA NA	<50	I
D301	BLACK GREASE	7-3	1450	SS 1/4	TJ	HS	NA NA NA NA NA NA	<50	I
D302	BLACK SOLID (SOIL)	7-3	1453	SB 1/4	TJ	HS	NA NA NA NA NA NA	<50	I
D303	BLACK GREASE	7-3	1500	SB F	TJ	HS	NA NA NA NA NA NA	<50	I
D304	NO SAMPLE	7-3							
D305	NO SAMPLE	7-3							
D306	BLACK GREASE	7-3	815 SS	1/4	TJ	HS	NA NA NA NA NA NA	<50	I
D307	BLACK GREASE	7-3	817 SS	1/4	TJ	HS	NA NA NA NA NA NA	<50	I
D308	BLACK SOLID	7-3	830 SS	1/4	TJ	HS	NA NA NA NA NA NA	<50	I
D309	BLACK OIL	7-3	834 SS	1/4	TJ	HS	NA NA NA NA NA NA	<50	I
D310	WHITE SOLID	7-3	840 SS	1/4	TJ	HS	NA NA NA NA NA NA	<50	I
D312	BROWN SOLID	7-3	450 SS	1/4	TJ	HS	NA NA NA NA NA NA	<50	I
D313	BLACK GREASE	7-3	855 SS	1/4	TJ	HS	NA NA NA NA NA NA	<50	I
D314	BLACK BROWN GREASE (SOIL)	7-3	900 SS	1/2	TJ	HS	NA NA NA NA NA NA	<50	I
D315	BLACK GREASE	7-3	908 SS	1/4	TJ	HS	NA NA NA NA NA NA	<50	I
D316	BLACK GREASE	7-3	913 SS	1/4	TJ	HS	NA NA NA NA NA NA	<50	I
D317	BLACK GREASE	7-3	917 SS	1/4	TJ	HS	NA NA NA NA NA NA	<50	I
D318	BLACK OIL (SOIL)	7-3	922 SS	1/4	TJ	HS	NA NA NA NA NA NA	<50	I
D319	NO SAMPLE	7-3							
D320	BLACK GREASE	7-3	1402 SS	1/4	TJ	HS	NA NA NA NA NA NA	<50	I
D321	NO SAMPLE	7-3							
D322	DAIRY BROWN OIL	7-3	1408 SS	1/4	TJ	HS	NA NA NA NA NA NA	<50	I
D324	BLACK GREASE	7-3	1410 SS	1/4	TJ	HS	NA NA NA NA NA NA	<50	I
D325	BLACK LIQUID/LIGHT BROWN SOLID	7-3	1412 SS	1/4	TJ	HS	NA NA NA NA NA NA	<50	I
D326	BLACK GREASE	7-3	1414 SS	1/4	TJ	HS	NA NA NA NA NA NA	<50	I
D327	BLACK GREASE	7-3	1416 SS	1/4	TJ	HS	NA NA NA NA NA NA	<50	I
D328	BLACK GREASE	7-3	1418 SS	1/4	TJ	HS	NA NA NA NA NA NA	<50	I
D329	NO PREDOMINANT	7-3	1416 SS	1/4	TJ	HS	NA NA NA NA NA NA	<50	I
D330	WATER	7-3	1416 SS	1/4	TJ	HS	NA NA NA NA NA NA	<50	I

Oklahoma  
(Red)

Sample Number	Description	DAB.	Time	Dist. mil	Surf. vol.	H. O. Hrs.	pH	M.E.C. (C. S. C. I. Hg.)	Comments
331	Black Grease	P-3	1422	55	3/4	I	NA	NA NA NA NA NA	17H
332	Black Oil	P-3	1424	55	6/4	I	NA	NA NA NA NA NA	17H
333	Brown Sludge	P-3	1430	55	1/4	I	NA	NA NA NA NA NA	17H
334	Black Grease	P-3	1435	55	4/4	I	NA	NA NA NA NA NA	17H
335	Dark oily soil	P-3	1435	55	3/4	I	NA	NA NA NA NA NA	17H
336	Black Tar	P-3	1438	55	3/4	I	NA	NA NA NA NA NA	17H
337	Black Grease	P-3	1442	55	4/4	I	NA	NA NA NA NA NA	17H
338	Brown Grease	P-3	1447	55	1/4	I	NA	NA NA NA NA NA	17H
339	Black Grease	P-3	1450	55	1/4	I	NA	NA NA NA NA NA	17H
340	Black Grease	P-3	1454	55	1/4	I	NA	NA NA NA NA NA	17H
341	Grey Glitter	P-3	1457	55	1/4	I	NA	NA NA NA NA NA	17H
342	Brown Grease	P-3	1457	55	1/4	I	NA	NA NA NA NA NA	17H
343	No Sample	P-4	1452	55	F	I	NA	NA NA NA NA NA	17H
344	Dark Brown Oil	P-4	1452	55	F	I	NA	NA NA NA NA NA	17H
345	Dark Brown Sludge	P-4	1452	55	F	I	NA	NA NA NA NA NA	17H
346	Dark Brown Tar	P-4	1502	55	F	I	NA	NA NA NA NA NA	17H
347	Black Grease	P-4	1504	55	1/4	I	NA	NA NA NA NA NA	17H
348	white powder	P-4	1506	55	1/4	I	NA	NA NA NA NA NA	17H
349	Black Tar	P-4	1508	55	1/4	I	NA	NA NA NA NA NA	17H
350	Black Grease	P-4	1510	55	1/4	I	NA	NA NA NA NA NA	17H
351	Grey solid	P-4	1512	55	1/4	I	NA	NA NA NA NA NA	17H
352	Dark Brown Grease	P-4	1514	55	1/4	I	NA	NA NA NA NA NA	17H
353	Black Sludge	P-4	1514	55	1/4	I	NA	NA NA NA NA NA	17H
354	Dark Brown Sludge	P-4	1516	55	1/4	I	NA	NA NA NA NA NA	17H
355	Dark Brown liquid	P-4	1520	55	F	I	NA	NA NA NA NA NA	17H
356	Dark Brown liquid	P-4	1522	55	F	I	NA	NA NA NA NA NA	17H
357	No Sample	P-4	1526	55	F	I	NA	NA NA NA NA NA	17H
358	Dark Brown liquid	P-4	1528	55	4/4	I	NA	NA NA NA NA NA	17H
359	Black Grease	P-4	1530	55	1/4	I	NA	NA NA NA NA NA	17H
360	Dark Sludge	P-4	1532	55	1/4	I	NA	NA NA NA NA NA	17H
361	Black Grease	P-4	1532	55	1/4	I	NA	NA NA NA NA NA	17H

**ORIGINAL**  
(Red)

12

Sample Number	Description	Date, Time	Sec	Min	Hour	PH	Per cent S	Comments
362	Grey Solid	7/4	1534	55	14	7.0	<40	17H
363	Black G. m.	7/4	1536	55	14	7.0	<50	17H "prolonged"
364	Black Grease	7/4	1539	55	14	7.0	<50	17H
365	Dart Brown Grease	7/4	1538	55	14	7.0	<50	17H
366	Brown Grease	7/4	1540	55	14	7.0	<50	17H
367	Grey Sol.	7/4	1542	55	14	7.0	<50	17H
368	Yellow L. g. d.	7/4	1542	55	14	7.0	<50	17H
369	White Sol.	7/4	1400	55	14	7.0	<50	17H
370	Black Grease	7/4	1405	55	14	7.0	<50	17E
371	Black Grease	7/4	1409	55	14	7.0	<50	17E
372	Tan Sol.	7/4	1410	55	14	7.0	<50	17E
373	Black Sol. d.	7/4	1412	55	14	7.0	<50	17E
374	Dark Brown Oil	7/4	1415	55	14	7.0	<50	17E
375	Black Grease	7/4	1418	55	14	7.0	<50	17E
376	Brown Grease	7/4	1420	55	14	7.0	<50	17E
377	Black Grease	7/4	1424	55	14	7.0	<50	17E
378	Black Grease	7/4	1427	55	14	7.0	<50	17E
379	Black Grease	7/4	1430	55	14	7.0	<50	17E
380	Dart Brown Tern	7/4	1433	55	14	7.0	<50	17H
381	Dart Brown Grease	7/4	1435	55	14	7.0	<50	17H
382	Blk. Grease	7/4	1437	55	14	7.0	<50	17H
383	Blk. Tern	7/4	1439	55	14	7.0	<50	17H
384	Yellow Grease	7/4	1442	55	14	7.0	<50	17H
385	Brown Solid (sec.)	7/4	1445	55	14	7.0	<50	17H
386	Red Grease	7/4	1450	55	14	7.0	<50	17H
387	Creamy Sol. / Black Grease	7/4	1452	55	14	7.0	<50	17H
388	Black Tern	7/4	1454	55	14	7.0	<50	17E
389	White Sol.	7/4	1459	55	14	7.0	<50	17H
390	Yellow Grease	7/4	1502	55	14	7.0	<50	17H
391	Dark Brown Tern	7/4	1505	55	14	7.0	<50	17H
392	Brown "sludge"	7/4	1510	55	14	7.0	<50	17H
393	Brown Grease	7/4	1513	55	14	7.0	<50	17H

**ORIGINAL  
(Red)**

AR 100402

Sample Number	Description	Date	Time	Run No.	Start wt.	H <sub>2</sub> O wt.	Category
394	White Soot Solid	9-1	1516	SP	1/4	JL	17E
395	Black Grease	9-1	1520	SP	1/2	JL	17H
396	Brown Sludge	9-1	1520	SP	1/4	JL	17H
397	Dark Brown Grease	9-1	1527	SP	1/4	JL	17H
398	Brown Sludge	9-1	1530	SP	1/4	JL	17H
399	Light Brown / Black Tar	9-1	1533	SP	1/4	JL	17H
400	Black Tar	9-1	1536	SP	1/4	JL	17H
401	Black Tar	9-1	1539	SP	1/4	JL	17H
402	Black Tar	9-1	1542	SP	1/4	JL	17H
403	Black Sludge	9-1	1543	SP	1/4	JL	17H
404	Dark Brown Grease	9-1	1547	SP	1/4	JL	17H
405	Yellow Grease	9-1	1550	SP	1/4	JL	17H
406	Yellow Grease	9-1	1551	SP	1/4	JL	17H
407	Brown Liquid	9-1	1554	SP	1/4	JL	17H
408	Black Grease	9-1	1557	SP	1/4	JL	17H
409	Black Grease	9-1	1600	SP	1/4	JL	17H
410	Black Sludge	9-1	1604	SP	1/4	JL	17H
411	Black Grease	9-1	1606	SP	1/4	JL	17H
412	Black Grease	9-1	1610	SP	1/4	JL	17H
413	Black Oil	9-1	1613	SP	1/4	JL	17H
414	Black Sludge	9-1	1617	SP	1/4	JL	17H
415	Black Oil	9-1	1621	SP	1/4	JL	17H
416	Acetone Oil / Purple Liquido	9-1	0816	SP	1/4	JL	17H
417	Black Grease	9-1	0821	SP	1/4	JL	17H
418	Black Grease	9-1	0825	SP	1/4	JL	17H
419	Black Grease	9-1	0834	SP	1/4	JL	17H
420	Dark Brown Tar	9-1	0835	SP	1/4	JL	17H
421	Black Grease	9-1	0842	SP	1/4	JL	17H
422	Black Grease	9-1	0842	SP	1/4	JL	17H
423	Dark Brown Oil	9-1	0843	SP	1/4	JL	17H
424	Dark Brown Oil	9-1	0851	SP	1/4	JL	17H
425	Black Grease	9-1	0902	SP	1/4	JL	17H
426	Dark Brown Grease	9-1	0906	SP	1/4	JL	17H

**ORIGINAL  
(Red)**

SAMPLE NUMBER	DESCRIPTION	DATE/TIME	Gauge Vol.	Samp. HRT.	H2O	PH	PER CLOU'S CIRCLES	Comments		Category
								30	60	
427	BROWN OIL	9-5 0410 55	F	I	I	NA	NA NA NA	<50	<50	H
428	GREENISH BROWN GREASE	9-5 0412 55	F	I	I	NA	NA NA	<50	<50	H
429	BROWN OIL	9-5 0416 55	F	I	I	NA	NA NA	<50	<50	H
430	BLACK SOLID	9-5 0421 55	F	I	I	NA	NA NA	<50	<50	H
431	BROWN VISCOSO OIL	9-5 0427 55	F	I	I	NA	NA NA	<50	<50	H
432	PINK SOLIDS	9-5 0432 55	F	I	I	NA	NA NA	<50	<50	H
433	BROWN SOLID	9-5 0436 55	F	I	I	NA	NA NA	<50	<50	H
434	LIGHT BROWN LIQUID	9-5 0437 55	F	I	I	NA	NA NA	<50	<50	H
435	BLACK GREASE	9-5 0442 55	F	I	I	NA	NA NA	<50	<50	H
436	BROWN GREASE	9-5 0447 55	F	I	I	NA	NA NA	<50	<50	H
437	PINK SOLID/PINK LIQUID	9-5 0551 55	F	I	I	NA	NA NA	<50	<50	H
438	BROWN OIL	9-5 0453 55	F	I	I	NA	NA NA	<50	<50	H
439	DARK BROWN OIL	9-5 0458 55	F	I	I	NA	NA NA	<50	<50	H
440	GREENISH BROWN SLUDGE	9-5 1000 55	F	I	I	NA	NA NA	<50	<50	H
441	DAK BROWN OIL	9-5 1004 55	F	I	I	NA	NA NA	<50	<50	H
442	DARK BROWN OIL	9-5 1008 55	F	I	I	NA	NA NA	<50	<50	H
443	DARK BROWN SLUDGE	9-5 1010 55	F	I	I	NA	NA NA	<50	<50	H
444	GREENISH BROWN SLUDGE	9-5 1015 55	F	I	I	NA	NA NA	<50	<50	H
445	NO SAMPLE	9-5 1019 42	F	I	I	NA	NA NA	<50	<50	H
446	BROWN GREASE	9-5 1210 55	F	I	I	NA	NA NA	<50	<50	H
447	BROWN GREASE (STICKY)	9-5 1213 55	F	I	I	NA	NA NA	<50	<50	H
448	GREEN LIQUID	9-5 1218 55	F	I	I	NA	NA NA	<50	<50	H
449	NO SAMPLE	9-5 1222 55	F	I	I	NA	NA NA	<50	<50	H
450	AMBER GREASE (STICKY)	9-5 1225 55	F	I	I	NA	NA NA	<50	<50	H
451	PINK SOLID / BROWN OIL	9-5 1228 55	F	I	I	NA	NA NA	<50	<50	H
452	GREEN SLUDGE	9-5 1231 55	F	I	I	NA	NA NA	<50	<50	H
453	BLACK SLUDGE	9-5 1233 55	F	I	I	NA	NA NA	<50	<50	H
454	BLACK GREASE	9-5 1315 55	F	I	I	NA	NA NA	<50	<50	H
455	DARK BROWN SLUDGE	9-5 1317 55	F	I	I	NA	NA NA	<50	<50	H
456	DARK BROWN OIL	9-5 1319 55	F	I	I	NA	NA NA	<50	<50	H
457	DARK BROWN OIL	9-5 1324 55	F	I	I	NA	NA NA	<50	<50	H
458	DARK BROWN SLUDGE	9-5 1326 55	F	I	I	NA	NA NA	<50	<50	H
459	BLACK GREASE	9-5 1328 55	F	I	I	NA	NA NA	<50	<50	H

**ORIGINAL  
(Red)**

15

SAMPLE NUMBER.	DESCRIPTION	DONE TIME	SPOTTED	TESTED	H <sub>2</sub> O	HEX	pH PER ODO CNU-5 <sup>1</sup> & FNU	COMMENTS
460	BLACK GREASE	9-5	1327 ss	T <sub>1</sub>	T <sub>1</sub> 6H	I	104	17H
461	BLACK SLUDGE	9-5	1330 ss	F	T <sub>1</sub> 6H	I	NA NA NA NA NA NA	17H
462	BLACK SLUDGE	9-5	1337 ss	F	T <sub>1</sub> 6H	I	NA NA NA NA NA NA	17H
463	DAK BROWN OIL	9-5	1348 ss	F	DK DK	I	NA NA NA NA NA NA	17H
464	DAK BROWN SLUDGE	9-5	1349 ss	F	T <sub>1</sub> 6H	I	NA NA NA NA NA NA	17H
465	DAK BROWN SLUDGE	9-5	1352 ss	F	T <sub>1</sub> 6H	I	NA NA NA NA NA NA	17H
466	DAK BROWN SLUDGE	9-5	1358 ss	F	T <sub>1</sub> 6H	I	NA NA NA NA NA NA	17H
467	BROWN OIL	9-5	1400 ss	F	T <sub>1</sub> 6H	I	NA NA NA NA NA NA	17H
468	CLEAR LIQUID	9-5	1403 ss	F	T <sub>1</sub> 6H	I	NA NA NA NA NA NA	17H
469	BLUE LIQUID	9-5	1410 ss	F	T <sub>1</sub> 6H	I	NA NA NA NA NA NA	17H
470	BROWN LIQUID	9-5	1422 ss	F	T <sub>1</sub> 6H	I	NA NA NA NA NA NA	17H
471	NO SAMPLE	9-5	1424 ss	F	T <sub>1</sub> 6H	I	NA NA NA NA NA NA	17H
472	BROWN LIQUID/CLEAR LIQUID	9-5	1439 ss	F	T <sub>1</sub> 6H	I	NA NA NA NA NA NA	17H
473	GRAY SLUDGE	9-5	1450 ss	F	T <sub>1</sub> 6H	I	NA NA NA NA NA NA	17H
474	TAN LIQUID	9-5	1458 ss	F	T <sub>1</sub> 6H	I	NA NA NA NA NA NA	17H
475	BROWN LIQUID	9-5	1445 ss	F	T <sub>1</sub> 6H	I	NA NA NA NA NA NA	17H
476	PINK SOLID	9-5	1451 ss	F	T <sub>1</sub> 6H	I	NA NA NA NA NA NA	17H
477	ACID LIQUID	9-5	1458 ss	F	T <sub>1</sub> 6H	I	NA NA NA NA NA NA	17H
478	BROWN LIQUID	9-5	1460 ss	F	T <sub>1</sub> 6H	I	NA NA NA NA NA NA	17H
479	BROWN LIQUID	9-5	1462 ss	F	T <sub>1</sub> 6H	I	NA NA NA NA NA NA	17H
480	NO SAMPLE	9-5	1501 ss	F	T <sub>1</sub> 6H	I	NA NA NA NA NA NA	17H
481	BROWN LIQUID/GREEN LIQUID	9-5	1502 ss	F	T <sub>1</sub> 6H	I	NA NA NA NA NA NA	17H
482	BROWN LIQUID/WHITE LIQUID	9-5	1507 ss	F	T <sub>1</sub> 6H	I	NA NA NA NA NA NA	17H
483	BROWN LIQUID	9-5	1509 ss	F	T <sub>1</sub> 6H	I	NA NA NA NA NA NA	17H
484	GRAY SOLID	9-5	1512 ss	F	T <sub>1</sub> 6H	I	NA NA NA NA NA NA	17H
485	BROWN LIQUID	9-5	1518 ss	F	T <sub>1</sub> 6H	I	NA NA NA NA NA NA	17H
486	DAK BROWN LIQUID	9-5	1520 ss	F	T <sub>1</sub> 6H	I	NA NA NA NA NA NA	17H
487	BROWN LIQUID/GRAY SLUDGE	9-5	1521 ss	F	T <sub>1</sub> 6H	I	NA NA NA NA NA NA	17H
488	BROWN LIQUID	9-5	1522 ss	F	T <sub>1</sub> 6H	I	NA NA NA NA NA NA	17H
489	PINK SOLID	9-5	1523 ss	F	T <sub>1</sub> 6H	I	NA NA NA NA NA NA	17H
490	BROWN LIQUID	9-5	1524 ss	F	T <sub>1</sub> 6H	I	NA NA NA NA NA NA	17H
491	BROWN LIQUID	9-5	1525 ss	F	T <sub>1</sub> 6H	I	NA NA NA NA NA NA	17H
492	PINK IN IN	9-5	1526 ss	F	T <sub>1</sub> 6H	I	NA NA NA NA NA NA	17H

**ORIGINAL**  
**(Red)**

05

SAMPLE NUMBER	DESCRIPTION	DATE	TIME	DOWNTIME	SIGHT	PH	PER CDO ON 5" CRUM	COMMENTS	CT. & ID.	
									I	IR
493	PINK SOLID	9-5	1738	55	F	7	NA NA NA NA NA C114	<50	17E	I
494	BROWN METALLIC GREASE	9-5	1739	55	JL	6H	NA NA NA NA C92	<50	17E	IR
495	YELLOW POWDER	9-5	1720	55	JL	6H	NA NA NA NA C92	<50	17E	I
496	DARK BROWN LIQUID	9-5	1721	55	JL	6H	NA NA NA NA C92	<50	17E	IR
497	BROWN TAR/CLEAR LIQUID	9-5	1604	45	JL	6H	NA NA NA NA C92	<50	17E	I
498	TAN SLUDGE	9-5	1732	55	JL	6H	NA NA NA NA C92	<50	17E	IR
499	RED SOLID	9-5	1735	55	JL	6H	NA NA NA NA C92	<50	17E	I
500	BROWN LIQUID	9-5	1742	55	JL	6H	NA NA NA NA C92	<50	17E	IR
501	BROWN LIQUID	9-5	1747	55	JL	6H	NA NA NA NA C92	<50	17E	I
502	PINK SCUD	9-5	1749	55	JL	6H	NA NA NA NA C92	<50	17E	IR
503	PINK SOLID	9-5	1751	55	JL	6H	NA NA NA NA C92	<50	17E	I
504	BROWN SLUDGE	9-5	1755	55	JL	6H	NA NA NA NA C92	<50	17E	IR
505	BLACK LIQUID/GRAIN SOLID	9-5	1800	55	JL	6H	NA NA NA NA C92	<50	17E	I
506	BROWN METALLIC GREASE	9-5	1802	55	JL	6H	NA NA NA NA C92	<50	17E	IR
507	BLACK TAR	9-5	1810	55	JL	6H	NA NA NA NA C92	<50	17E	I
508	YELLOW POWDER	9-5	1810	55	JL	6H	NA NA NA NA C92	<50	17E	IR
509	BLACK GREASE	9-5	1850	55	JL	6H	NA NA NA NA C92	<50	17E	I
510	PINK LIQUID	9-5	1800	55	JL	6H	NA NA NA NA C92	<50	17E	IR
511	GREEN SOLID	9-5	1810	55	JL	6H	NA NA NA NA C92	<50	17E	I
512	BROWN LIQUID	9-5	1810	55	JL	6H	NA NA NA NA C92	<50	17E	IR
513	PINK SLUDGE	9-5	1800	55	JL	6H	NA NA NA NA C92	<50	17E	I
514	BROWN LIQUID	9-5	1805	55	JL	6H	NA NA NA NA C92	<50	17E	IR
515	BROWN METALLIC GREASE	9-5	1810	55	JL	6H	NA NA NA NA C92	<50	17E	I
516	PINK LIQUID	9-5	1301	55	JL	6H	NA NA NA NA C92	<50	17E	IR
517	PINK LIQUID	9-5	1300	55	JL	6H	NA NA NA NA C92	<50	17E	I
518	BROWN SOLID	9-5	1305	55	JL	6H	NA NA NA NA C92	<50	17E	IR
519	BLACK BROWN LIQUID	9-5	1308	55	JL	6H	NA NA NA NA C92	<50	17E	I
520	BROWN SOLID	9-5	1310	55	JL	6H	NA NA NA NA C92	<50	17E	IR
521	GRAY SOLID	9-5	1314	55	JL	6H	NA NA NA NA C92	<50	17E	I
522	BROWN SLUDGE	9-5	1317	55	JL	6H	NA NA NA NA C92	<50	17E	IR
523	BLACK TAR	9-5	1320	55	JL	6H	NA NA NA NA C92	<50	17E	I
524	GRAY SLUDGE	9-5	1330	55	JL	6H	NA NA NA NA C92	<50	17E	IR
525	GRAY LIQUID	9-5	1335	55	JL	6H	NA NA NA NA C92	<50	17E	IR

**ORIGINAL**  
(Red)

17

SAMPLE NUMBER	DESCRIPTION	TIME	TIME	DEGR. NO.	TEMP. °C	H <sub>2</sub> O	HEX	pOH PER OXID ON S <sup>2-</sup> FROM PA NO 119	COMMENTS	CATERS...
526	DARK BROWN LIQUID	9-5	1337	55	JL 6H	I	PA NO 119	<50	17H	IV
527	PINK LIQUID	9-5	1340	55	JL 6H	I	PA NO 119	<50	17H	IV
528	GRAY SLUDGE	9-5	1342	55	JL 6H	PS	PA NO 119	450	17H	IV
529	BLUE-GREEN LIQUID	9-5	1345	55	JL 6H	PS	PA NO 119	450	17H	IV
530	PINK LIQUID	9-5	1348	55	JL 6H	PS	PA NO 119	450	17H	IV
531	DARK BROWN LIQUID	9-5	1400	55	JL 6H	I	PA NO 119	450	17H	IV
532	GRAY-PINK SLUDGE	9-5	1405	55	JL 6H	PS	PA NO 119	450	17H	IV
533	DARK BROWN LIQUID	9-5	1410	55	JL 6H	I	PA NO 119	450	17H	IV
534	TAN - PINK LIQUID	9-5	1420	55	JL 6H	PS	PA NO 119	450	17H	IV
535	BLACK LIQUID/CLEAR LIQUID	9-5	1425	55	JL 6H	I	PA NO 119	450	17H	IV
536	DARK BROWN LIQUID	9-5	1430	55	JL 6H	PS	PA NO 119	450	17H	IV
537	BROWN LIQUID	9-5	1510	55	JL 6H	I	PA NO 119	450	17H	IV
538	NO SAMPLE	9-5	1530	55	JL 6H	PS	PA NO 119	450	17H	IV
539	GRAY SLUDGE	9-5	1530	55	JL 6H	I	PA NO 119	450	17H	IV
540	P-50-11	9-5	1540	55	JL 6H	I	PA NO 119	450	17H	IV
541	BROWN LIQUID/GRAY SLUDGE	9-5	1545	55	JL 6H	I	PA NO 119	450	17H	IV
542	BLACK GREASE	9-5	1545	55	JL 6H	I	PA NO 119	450	17H	IV
543	GRAY SLUDGE/CLO-111 100:1	9-5	1605	55	JL 6H	PS	PA NO 119	450	17H	IV
544	NO SAMPLE	9-5	1605	55	JL 6H	I	PA NO 119	450	17H	IV
545	BLACK GREASE	9-5	1630	55	JL 6H	I	PA NO 119	450	17H	IV
546	PINK LIQUID	9-5	1635	55	JL 6H	PS	PA NO 119	450	17H	IV
548	BROWN LIQUID	9-5	1640	55	JL 6H	I	PA NO 119	450	17H	IV
549	BROWN LIQUID/PINK LIQUID	9-5	1645	55	JL 6H	PS	PA NO 119	450	17H	IV
550	BLACK BROWN SLUDGE	9-6	0900	55	JL 6H	I	PA NO 119	450	17H	IV
551	BROWN OIL	9-6	0915	55	JL 6H	PS	PA NO 119	450	17H	IV
552	GREEN SLUDGE	9-6	0920	55	JL 6H	I	PA NO 119	450	17H	IV
553	NO SAMPLE (CRASH)	9-6	0925	55	JL 6H	PS	PA NO 119	450	17H	IV
554	PINK LIQUID	9-6	0940	55	JL 6H	PS	PA NO 119	450	17H	IV
555	GRAY SLUDGE	9-6	0945	55	JL 6H	PS	PA NO 119	450	17H	IV
556	TAN LIQUID	9-6	0942	55	JL 6H	PS	PA NO 119	450	17H	IV
557	BLACK OIL	9-6	0949	55	JL 6H	I	PA NO 119	450	17H	IV
558	CRASH	9-6	0943	55	JL 6H	I	PA NO 119	450	17H	IV

NUMBER	DESCRIPTION	DATE TIME PREP.		PH PER OXO ON'S C120	COMMENTS OR TESTS
		HR	MIN		
559	BROWN OIL / GRAY SLUDGE	96	0410 55	F	17E "GASEOUS, SOFT"
560	BROWN OIL / GRAY LIQUID	96	0410 55	F	17E "GASEOUS, SOFT"
561	GREEN LIQUID	96	0412 55	F	17E "GASEOUS, SOFT"
562	PINK SOLN	96	0412 55	F	17H
563	REMOVED OIL	96	0424 55	F	17H
564	BROWN OIL / PURPLE LIQUID	96	0421 55	F	17H
565	PINK LIQUID	96	0424 55	F	17H
566	REMOVED SOLN (SOIL)	96	0434 55	F	17H
567	BLACK TAR	96	0440 55	F	17H
568	BLACK GREASE	96	0444 55	F	17H?
569	GRAY SOLN (SOIL)	96	0443 55	F	17H?
570	BLACK GREASE	95	55	F	17H
571	BLACK GREASE	96	0447 55	F	17H
572	NO SAMPLE	96	0449 55	F	17H
573	RED SOLN	96	0451 55	F	17H
574	DARK BROWN SOLN	96	0452 55	F	17H
575	BLACK SOLN	96	0454 55	F	17H
576	BLACK SLUDGE	96	0458 55	I	17H
577	BLACK SLUDGE	96	0457 55	I	17H
578	BLACK GREASE	96	1000 55	I	17H
579	BLACK GREASE	96	1002 55	I	17H
580	BLACK GREASE	96	1007 55	I	17H
581	DARK BROWN SLUDGE	96	1010 55	I	17H
582	DARK BROWN METALLIC GREASE	96	1012 55	I	17H
583	DARK BROWN METALLIC GREASE	96	1015 55	I	17H
584	BLACK GREASE	96	1020 55	I	17H
585	NO SAMPLE	96	1023 55	I	17H
586	BLACK BROWN SLUDGE	96	1024 55	I	17H
587	BLACK TAR	96	1025 55	I	17H
588	NO SAMPLE	96	1029 55	I	17H
589	BLACK METAL OIL	96	1032 55	I	17H
590	BLACK GREASE	96	1036 55	I	17H
591	BLACK LIQUID	96	1041 55	I	17H

ORIGINAL  
(Red)

**ORIGINAL**  
(Red)

19

SAMPLE NUMBER	DESCRIPTION	ONE MM. SIZE	REVIEW	VAL.	SEARCH	HEX	SPH	PURE OXO-CN-S-C(=O)C	COMMENTS
592	BLACK SLUDGE	9.6 1120 55	I	I	I	I	I	C123	17H
593	RED SOLID	9.6 1118 55	I	I	I	I	I	C123	17E
594	BROWN OIL	9.6 1222 55	I	I	I	I	I	C122	17H
595	BROWN VISCOS SLUDGE	9.6 1128 55	I	I	I	I	I	C120	150
596	BROWN GREASE	9.6 1130 55	I	I	I	I	I	C120	150
597	BLACK GREASE	9.6 1135 55	I	I	I	I	I	C122	150
598	BLACK GREASE	9.6 1139 55	I	I	I	I	I	C122	150
599	BLACK GREASE	9.6 1140 55	I	I	I	I	I	C122	150
600	BLACK POWDER	9.6 1146 55	I	I	I	I	I	C122	17H
601	BLACK GREASE	9.6 1148 55	I	I	I	I	I	C122	17H
602	BLACK SLUDGE	9.6 1150 55	I	I	I	I	I	C122	17H
603	BLACK GREASE	9.6 1202 55	I	I	I	I	I	C126	150
604	BLACK GREASE	9.6 1000 55	I	I	I	I	I	C126	17H
605	BLACK GREASE	9.6 1003 55	I	I	I	I	I	C126	17H
606	BROWN METALLIC GREASE	9.6 1001 55	I	I	I	I	I	C126	17H
607	BLACK GREASE	9.6 1015	I	I	I	I	I	C126	17H
608	NO SAMPLE	9.6 1016	I	I	I	I	I	C126	17H
609	BLACK POWDER	9.6 1014 55	I	I	I	I	I	C126	17H
610	BLACK SLUDGE	9.6 1025 55	I	I	I	I	I	C126	17H
611	DARK BROWN OIL	9.6 1027 55	I	I	I	I	I	C124	150
612	BROWN BROWN GREASE	9.6 1030 55	I	I	I	I	I	C124	150
613	BLACK GREASE	9.6 1034 55	I	I	I	I	I	C124	150
614	BLACK GREASE	9.6 1040 55	I	I	I	I	I	C125	150
615	NO SAMPLE	9.6 1054 55	I	I	I	I	I	C125	150
616	NOX PRECIP. OIL	9.6 1058 55	I	I	I	I	I	C125	150
617	PINK SOLID	9.6 1100 55	I	I	I	I	I	C128	17H
618	GREEN GREASE	9.6 1103 55	I	I	I	I	I	C128	17H
619	GRAY GREASE	9.6 1106 55	I	I	I	I	I	C140	150
620	BROWN GREASE	9.6 1110 55	I	I	I	I	I	C140	150
621	GRAY GREASE	9.6 1114 55	I	I	I	I	I	C127	150
622	NO SAMPLE	9.6 1115 55	I	I	I	I	I	C127	17H
623	BLACK GREASE	9.6 1116 55	I	I	I	I	I	C127	17H
624	BROWN METALLIC GREASE	9.6 1117 55	I	I	I	I	I	C127	17H

SAMPLE NUMBER	DESCRIPTION	DATE	TIME	OPRY	VAL	SURF.	H2O	HEX	PPM PER CANNON'S SCALE	COMMENTS	Catalog	
625	NO SAMPLE	9-6	1118	55	F	5	5	5	127	<50	174	0
626	BLACK GREASE	9-6	1120	55	F	5	5	5	127	<50	174	0
627	BLACK GREASE	9-6	0120	55	F	5	5	5	127	<50	174	0
628	BLACK TAR	9-6	0418	55	F	5	5	5	127	<50	174	0
629	BLACK GREASE	9-6	0416	55	F	5	5	5	127	<50	174	0
630	BLACK GOOSE	9-6	0413	55	F	5	5	5	127	<50	174	0
631	BLACK TAR	9-6	0410	55	F	5	5	5	127	<50	174	0
632	PACK ARROW SLUDGE	9-6	0104	55	F	5	5	5	127	<50	174	0
633	BLACK GREASE	9-6	1202	55	F	5	5	5	127	<50	174	0
634	GRAY SLUDGE	9-6	1205	55	F	5	5	5	127	<50	174	0
635	BROWN SLUDGE	9-6	1208	55	F	5	5	5	127	<50	174	0
636	BROWN METALLIC GREASE	9-6	55	<1/4	F	5	5	5	127	<50	174	0
637	BLACK SLUDGE	9-6	55	<1/4	F	5	5	5	127	<50	174	0
638	BROWN LIQUID	9-6	55	<1/4	F	5	5	5	127	<50	174	0
639	BLACK GREASE	9-6	55	<1/4	F	5	5	5	127	<50	174	0
640	BROWN LIQUID	9-6	55	<1/4	F	5	5	5	127	<50	174	0
641	BLACK GREASE	9-6	55	<1/4	F	5	5	5	127	<50	174	0
642	BROWN GREASE	9-6	55	<1/4	F	5	5	5	127	<50	174	0
643	BLACK GREASE	9-6	55	<1/4	F	5	5	5	127	<50	174	0
644	BLACK GREASE	9-6	55	<1/4	F	5	5	5	127	<50	174	0
645	BLACK GREASE	9-6	55	<1/4	F	5	5	5	127	<50	174	0
646	DARK BROWN TAR	9-6	1438	55	F	5	5	5	127	<50	174	0
647	DAK BROWN GREASE	9-6	1442	55	F	5	5	5	127	<50	174	0
648	NO SAMPLE	9-6	1449	55	F	5	5	5	127	<50	174	0
649	DARK BROWN TAR	9-6	1455	55	F	5	5	5	127	<50	174	0
650	BLACK TAR	9-6	1454	55	F	5	5	5	127	<50	174	0
651	BROWN LIQUID	9-6	1425	55	F	5	5	5	127	<50	174	0
652	GRAY SLUDGE	9-6	1428	55	F	5	5	5	127	<50	174	0
653	GRAY SLUDGE	9-6	1443	55	F	5	5	5	127	<50	174	0
654	BROWN SLUDGE	9-6	1450	55	F	5	5	5	127	<50	174	0
655	BLACK GREASE	9-6	1422	55	F	5	5	5	127	<50	174	0
656	BROWN METALLIC GREASE	9-6	1330	55	F	5	5	5	127	<50	174	0
657	BROWN SLUDGE	9-6	1715	55	F	5	5	5	127	<50	174	0

ORIGINAL  
(Red)

SAMPLE NUMBER.	DESCRIPTION	DATE	TIME	SP. GRAM	VOL	TEMP. FAHR.	H2O	HEX.	PH PER OXON. C14	5% CI 14	COMMENTS
658	GRAY SLUDGE	9-6	1:340	55	1/4	55	I	I	135	<50	17 H
654	BROWN SOLID (SOIL)	9-6	1:343	55	1/4	55	I	I	135	<50	17 H
660	NO SAMPLE	9-6	1:344	55	1/2	55	I	I	135	<50	I
661	DARK BROWN OIL	9-6	1:347	55	1/2	55	I	I	134	<50	I
662		9-6	1:349	55	1/2	55	I	I	134	<50	I
663	BLACK GREASE	9-6	1:340	55	1/2	55	I	I	134	<50	OPEN
664	DARK BROWN GREASE	9-6	1:343	55	1/4	55	I	I	134	<50	17 H
665	DARK BROWN SLUDGE	9-6	1:350	55	1/4	55	I	I	134	<50	I
666	BLACK GREASE	9-6	1:352	55	1/4	55	I	I	134	<50	I
667	BLACK GREASE	9-6	1:354	55	1/4	55	I	I	134	<50	I
668	BLACK GREASE	9-6	1:357	55	1/4	55	I	I	134	<50	I
669	BLACK GREASE	9-6	1:360	55	1/4	55	I	I	134	<50	I
670	BLACK GREASE	9-6	1:360	55	1/4	55	I	I	134	<50	I
671	RED LIQUID	9-6	1:315	55	1/4	55	I	I	134	<50	I
672	NO SAMPLE (TRASH)	9-6	1:352	55	1/4	55	I	I	134	<50	I
673	BROWN GREASE	9-6	1:356	55	1/4	55	I	I	134	<50	I
674	BROWN GREASE	9-7	0:010	55	1/4	55	I	I	134	<50	I
675	BLACK OIL	9-7	0:013	55	1/4	55	I	I	134	<50	I
676	NO SAMPLE (TRASH)	9-7	0:014	42	1/4	55	I	I	134	<50	I
677	GRAY TAR	9-7	0:017	55	1/4	55	I	I	134	<50	I
678	YELLOW FLUID	9-7	0:021	42	1/4	55	I	I	134	<50	I
679	GRAY SLUDGE	9-7	0:024	55	1/4	55	I	I	134	<50	I
680	BROWN SLUDGE	9-7	0:026	55	1/4	55	I	I	134	<50	I
681	BROWN SLUDGE	9-7	0:029	55	1/4	55	I	I	134	<50	I
682	GRAY SLUDGE	9-7	0:032	55	1/4	55	I	I	134	<50	I
683	GRAY SLUDGE	9-7	0:034	55	1/4	55	I	I	134	<50	I
684	BLACK GREASE	9-7	0:036	55	1/4	55	I	I	134	<50	I
685	GRAY TAR	9-7	0:048	42	1/4	55	I	I	134	<50	I
686	NO SAMPLE (TRASH)	9-7	0:040	55	1/4	55	I	I	134	<50	I
687	GRAY GREASE	9-7	0:042	55	1/4	55	I	I	134	<50	I
688	NO SAMPLE (TRASH)	9-7	0:044	55	1/4	55	I	I	134	<50	I
689	GRAY SLUDGE	9-7	0:046	55	1/4	55	I	I	134	<50	I

SAMPLE NUMBER	DESCRIPTION	DATE TAKEN	TIME	ROOM	WEIGHT	COMMENT
757	BLACK GREASE	9-7	1650	55	C	17-A ORE
758	GRAY GREASE	9-7	0808	55	C	17-H ORE
759	BLACK GREASE	9-7	0806	55	C	17-H PLEXIGLASS
760	BLACK GREASE	9-7	0804	55	C	17-H
761	BLACK GREASE	9-7	0802	55	C	17-H PLEXIGLASS
762	BLACK GREASE	9-7	0800	55	C	17-H
763	BLACK GREASE	9-7	0740	55	C	17-H PLEXIGLASS
764	BLACK GREASE	9-7	0740	55	C	17-H PLEXIGLASS
765	BLACK GREASE	9-7	0740	55	C	17-H PLEXIGLASS
766	BLACK GREASE	9-7	0740	55	C	17-H PLEXIGLASS
767	BLACK GREASE	9-7	0740	55	C	17-H PLEXIGLASS
768	BLACK GREASE	9-7	0740	55	C	17-H PLEXIGLASS
769	BLACK GREASE	9-7	0740	55	C	17-H PLEXIGLASS
770	BLACK GREASE	9-7	0740	55	C	17-H PLEXIGLASS
771	BLACK GREASE/CLEAR LIQUID	9-7	0740	55	C	17-H PLEXIGLASS
772	NO SAMPLE	9-7	0740	55	C	17-H PLEXIGLASS
773	WHITE SOLID	9-7	0740	55	C	17-H PLEXIGLASS
774	GRAY LIQUID	9-7	0740	55	C	17-H PLEXIGLASS
775	BLACK SLUDGE	9-7	0740	55	C	17-H PLEXIGLASS
776	BROWN LIQUID	9-7	0740	55	C	17-H PLEXIGLASS
777	BLACK GREASE	9-7	0740	55	C	17-H PLEXIGLASS
778	BLACK GREASE/CLEAR LIQUID	9-7	0740	55	C	17-H PLEXIGLASS
779	SILVER POWDER	9-7	0740	55	C	17-H PLEXIGLASS
780	BLACK GREASE	9-7	0740	55	C	17-H PLEXIGLASS
781	BLACK LIQUID	9-7	0740	55	C	17-H PLEXIGLASS
782	BLACK SOLID	9-7	0740	55	C	17-H PLEXIGLASS
783	BLACK GREASE	9-7	1002	55	C	17-H PLEXIGLASS
784	BLACK GREASE	9-7	1004	55	C	17-H PLEXIGLASS
785	BLACK GREASE	9-7	1004	55	C	17-H PLEXIGLASS
786	BLACK GREASE	9-7	1004	55	C	17-H PLEXIGLASS
787	BLACK GREASE/CLEAR LIQUID	9-7	1004	55	C	17-H PLEXIGLASS
788	BLACK TAR	9-7	1004	55	C	17-H PLEXIGLASS
789	PINK GREASE	9-7	1004	55	C	17-H PLEXIGLASS

ORIGINAL  
(Red)

Sample Number	Description	Time	Date	Location	Depth	Temp	pH	EC	Dissolved Oxygen	Chloride	Ammonium	Nitrate	Comments
741	BLACK SLUDGE	9-7	55										I
742	BLACK GREASE	9-7	55										I
743	BLACK SLUDGE	9-7	55										I
744	BLACK TAR	9-7	55										I
745	BLACK SLUDGE	9-7	55										I
746	BLACK SLUDGE	9-7	55										I
747	BLACK GREASE	9-7	55										I
748	BLACK OIL	9-7	55										I
749	BLACK SLUDGE	9-7	55										I
750	BLACK GREASE	9-7	55										I
751	BLACK GREASE	9-7	55										I
752	BLACK SLUDGE	9-7	55										I
753	BLACK TAR	9-7	55										I
754	BLACK SLUDGE	9-7	55										I
755	BLACK GREASE	9-7	55										I
756	BLACK GREASE	9-7	55										I
757	BLACK GREASE	9-7	55										I
758	BLACK GREASE	9-7	55										I
759	BLACK GREASE	9-7	55										I
760	BLACK GREASE	9-7	55										I
761	BLACK GREASE	9-7	55										I
762	BLACK GREASE	9-7	55										I
763	BLACK GREASE	9-7	55										I
764	BLACK GREASE	9-7	55										I
765	BLACK GREASE	9-7	55										I
766	BLACK GREASE	9-7	55										I
767	BLACK GREASE	9-7	55										I
768	BLACK GREASE	9-7	55										I
769	BLACK GREASE	9-7	55										I
770	BLACK GREASE	9-7	55										I
771	BLACK GREASE	9-7	55										I
772	BLACK GREASE	9-7	55										I
773	BLACK GREASE	9-7	55										I
774	BLACK GREASE	9-7	55										I
775	BLACK GREASE	9-7	55										I
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778	BLACK GREASE	9-7	55										I
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780	BLACK GREASE	9-7	55										I
781	BLACK GREASE	9-7	55										I
782	BLACK GREASE	9-7	55										I
783	BLACK GREASE	9-7	55										I
784	BLACK GREASE	9-7	55										I
785	BLACK GREASE	9-7	55										I
786	YELLOW GREASE	9-7	55										I
787	BLACK SOLID	9-7	55										I
788	BLACK SOLID	9-7	55										I
789	BLACK SOLID	9-7	55										I
790	BLACK SOLID	9-7	55										I
791	BLACK SOLID	9-7	55										I
792	BLACK SOLID	9-7	55										I
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795	BLACK SOLID	9-7	55										I
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811	BLACK SOLID	9-7	55										I
812	BLACK SOLID	9-7	55										I
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814	BLACK SOLID	9-7	55										I
815	BLACK SOLID	9-7	55										I
816	BLACK SOLID	9-7	55										I
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818	BLACK SOLID	9-7	55										I
819	BLACK SOLID	9-7	55										I
820	BLACK SOLID	9-7	55										I
821	BLACK SOLID	9-7	55										I
822	BLACK SOLID	9-7	55										I
823	BLACK SOLID	9-7	55										I
824	BLACK SOLID	9-7	55										I
825	BLACK SOLID	9-7	55										I
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838	BLACK SOLID	9-7	55										I
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840	BLACK SOLID	9-7	55										I
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844	BLACK SOLID	9-7	55										I
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865	BLACK SOLID	9-7	55										I
866	BLACK SOLID	9-7	55										I
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869	BLACK SOLID	9-7	55										I
870	BLACK SOLID	9-7	55										I
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881	BLACK SOLID	9-7	55										I
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887	BLACK SOLID	9-7	55										I
888	BLACK SOLID	9-7	55										I
889	BLACK SOLID	9-7	55										I
890	BLACK SOLID	9-7	55										I
891	BLACK SOLID	9-7	55										I
892	BLACK SOLID	9-7	55										I
893	BLACK SOLID	9-7	55										I
894	BLACK SOLID	9-7	55										I
895	BLACK SOLID	9-7	55										I
896	BLACK SOLID	9-7	55										I
897	BLACK SOLID	9-7	55										I
898	BLACK SOLID	9-7	55	</									

## ORIGINAL

(Red)

SAMPLE NUMBER	DESCRIPTION	DATE	TIME	NO.	PH	PER OXIDATION TEST	COMMENTS
823	GRAY GREASE	9-7	1410 55	1	5	150 17-H 10% ACUM	(10%)
824	BROWN SOLID	9-7	1412 55	1	5	<50 17-H	
825	BLACK GREASE	9-7	1416 55	1	5	<50 17-H	
826	NO SAMPLE	9-7	1416 55	1	5	<50 17-H	
827	NO SAMPLE	9-7	1418 55	1	5	<50 17-H	
828	BROWN SLUDGE	9-7	1420 42	1	5	<50 17-H	
829	BLACK GREASE	9-7	1422 55	1	5	<50 17-H	
830	GRAY GREASE	9-7	1424 55	1	5	<50 17-H	
831	BLACK GREASE	9-7	1426 55	1	5	<50 17-H	
832	BLACK OIL	9-7	1429 55	1	5	<50 17-H	
833	BLACK GREASE	9-7	1433 55	1	5	<50 17-H	
834	BLACK GREASE/CLEAR LIQUID	9-7	1434 55	1	5	<50 17-H	
835	BLACK GREASE/CLEAR LIQUID	9-7	1445 55	1	5	<50 17-H	
836	BLACK GREASE	9-7	1740 55	1	5	<50 17-H	
837	BLACK GREASE	9-7	1647 55	1	5	<50 17-H	
838	BLACK GREASE	9-7	1735 55	1	5	<50 17-H	
839	BLACK GREASE	9-7	1720 55	1	5	<50 17-H	
840	BLACK SOLID	9-7	1717 55	1	5	<50 17-H	
841	BLACK GREASE	9-7	1705 55	1	5	<50 17-H	
842	NO SAMPLE (CRASH)	9-7	1701	1	5	<50 17-H	
843	BLACK GREASE	9-7	1715 55	1	5	<50 17-H	
844	YELLOW LIQUID	9-7	1730 55	1	5	<50 17-H	
845	BLACK GREASE	9-7	1732 55	1	5	<50 17-H	
846	BLACK GREASE	9-7	1652 55	1	5	<50 17-H	
847	YELLOW LIQUID	9-7	1656 55	1	5	<50 17-H	
848	BROWN OIL	9-7	1658 55	1	5	<50 17-H	
849	BLACK GREASE	9-7	1700 55	1	5	<50 17-H	
850	BLACK GREASE	9-7	1645 55	1	5	<50 17-H	
851	BLACK GREASE	9-8	1400 55	1	5	<50 17-H	
852	TAN LIQUID	9-8	1408 55	1	5	<50 17-H	
853	NO SAMPLE (CRASH)	9-8	1413	1	5	<50 17-H	
854	NO SAMPLE (CRASH)	9-8	1415	1	5	<50 17-H	
855	NO SAMPLE	9-8	1417	1	5	<50 17-H	

**ORIGINAL  
(Red)**

SAMPLE NUMBER	DESCRIPTION	DATE	TIME	PPHM	Vol.	PH	PERCENT	H <sub>2</sub> O	HEX	PH	PERCENT	C <sub>2</sub> H <sub>4</sub> RAN	COMMENTS
856	WHITE SOLID	9-8	1420	55	1/2	7	1	I	I	7	17-E	C210	30 17-E EXCERPT REDUCED
857	WHITE SOLID	9-8	1422	55	1/2	7	1	I	I	7	17-E	C210	30 17-E EXCERPT REDUCED
858	WHITE SOLID	9-8	1423	55	1/2	7	1	I	I	7	17-E	C210	30 17-E
859	BROWN SOLID/CLEAR LIQUID	9-8	1430	55	1/2	7	1	I	I	7	17-E	C210	30 17-E
860	YELLOW SOLID	9-8	1432	55	1/2	7	1	I	I	7	17-E	C210	30 17-E
861	NO SAMPLE (TRASH)	9-8	1434	55	1/2	7	1	I	I	7	17-E	C210	30 17-E
862	BROWN LIQUID	9-8	1437	55	1/2	7	1	I	I	7	17-E	C210	30 17-E
863	BLACK TUR/YELLOW LIQUID	9-8	1440	55	1/2	7	1	I	I	7	17-E	C210	30 17-E
864	RED AND GREEN SOLID	9-8	1445	55	1/2	7	1	I	I	7	17-E	C210	30 17-E
865	CLEAR LIQUID	9-8	1447	55	1/2	7	1	I	I	7	17-E	C210	30 17-E
866	NO SAMPLE (TRASH)	9-8	1530	55	1/2	7	1	I	I	7	17-E	C210	30 17-E
867	YELLOW SOLID/CLEAR LIQUID	9-8	1535	55	1/2	7	1	I	I	7	17-E	C210	30 17-E
868	YELLOW LIQUID	9-8	1540	55	1/2	7	1	I	I	7	17-E	C210	30 17-E
869	BLACK GREASE	9-8	1546	55	1/2	7	1	I	I	7	17-E	C210	30 17-E
870	GRAY GREASE/CLEAR LIQUID	9-8	1601	55	1/2	7	1	I	I	7	17-E	C210	30 17-E
871	BLACK GREASE	9-8	1610	55	1/2	7	1	I	I	7	17-E	C210	30 17-E
872	BLACK GREASE	9-8	1612	55	1/2	7	1	I	I	7	17-E	C210	30 17-E
873	BLACK GREASE	9-8	1615	55	1/2	7	1	I	I	7	17-E	C210	30 17-E
874	BLACK GREASE	9-8	1620	55	1/2	7	1	I	I	7	17-E	C210	30 17-E
875	YELLOW SOLID/CLEAR LIQUID	9-8	1440	55	1/2	7	1	I	I	7	17-E	C210	30 17-E
876	YELLOW SOLID/CLEAR LIQUID	9-8	1438	55	1/2	7	1	I	I	7	17-E	C210	30 17-E
877	RED SOLID	9-8	1436	55	1/2	7	1	I	I	7	17-E	C210	30 17-E
878	BLACK GREASE	9-8	1439	55	1/2	7	1	I	I	7	17-E	C210	30 17-E
879	BLACK GREASE	9-8	1442	55	1/2	7	1	I	I	7	17-E	C210	30 17-E
880	BLACK GREASE	9-8	1430	55	1/2	7	1	I	I	7	17-E	C210	30 17-E
881	BLACK GREASE	9-8	1428	55	1/2	7	1	I	I	7	17-E	C210	30 17-E
882	PURPLE LIQUID	9-8	1426	55	1/2	7	1	I	I	7	17-E	C210	30 17-E
883	BLACK GREASE/CLEAR LIQUID	9-8	1424	55	1/2	7	1	I	I	7	17-E	C210	30 17-E
884	YELLOW LIQUID	9-8	1428	55	1/2	7	1	I	I	7	17-E	C210	30 17-E
885	BLACK OIL	9-8	1422	55	1/2	7	1	I	I	7	17-E	C210	30 17-E
886	PINK SOLID	9-8	1400	55	1/2	7	1	I	I	7	17-E	C210	30 17-E
887	BLACK GREASE	9-8	1404	55	1/2	7	1	I	I	7	17-E	C210	30 17-E

**ORIGINAL**  
(Red)

17

SAMPLE NUMBER	DESCRIPTION	DAE TIME	SPIN VOL	SPIN TIME	NO.	H2O	HEX/PH PER ODO ON 5'21' RUM	COMMENT	MEAS.
889	NO SAMPLE (TRASH)	9-9	55	20	I	I	NA	NA	I
890	BLACK GREASE	9-8	1408	55	I	I	NA	NA	II
891	BLACK GREASE	9-8	1410	55	I	I	NA	NA	III
892	YELLOW LIQUID	9-8	1412	55	I	I	NA	NA	IV
893	PURPLE LIQUID	9-8	1414	55	I	I	NA	NA	V
894	BROWN LIQUID	9-8	1416	55	I	I	NA	NA	VI
895	YELLOW SOLID	9-8	1418	55	I	I	NA	NA	VII
896	YELLOW SOLID	9-8	1420	55	I	I	NA	NA	VIII
897	WHITE SOLID	9-9	55	20	I	I	NA	NA	IX
898	WHITE SOLID	9-8	1422	55	I	I	NA	NA	X
899	WHITE SOLID	9-8	1424	55	I	I	NA	NA	XI
900	YELLOW SOLID/YELLOW LIQUID	9-8	1426	55	I	I	NA	NA	XII
901	YELLOW LIQUID	9-8	1428	55	I	I	NA	NA	XIII
902	YELLOW LIQUID	9-8	1430	55	I	I	NA	NA	XIV
903	YELLOW GREASE	9-8	1432	55	I	I	NA	NA	XV
904	NO SAMPLE (TRASH)	9-8	1435	55	I	I	NA	NA	XVI
905	YELLOW SOLID	9-8	1438	55	I	I	NA	NA	XVII
906	BROWN LIQUID	9-8	1450	55	I	I	NA	NA	XVIII
907	BROWN GREASE	9-8	1452	55	I	I	NA	NA	XIX
908	BROWN GREASE	9-8	1652	55	I	I	NA	NA	X
909	RUBB. ALK GREASE	9-8	1630	55	I	I	NA	NA	XI
910	BROWN METALLIC GREASE	9-8	1653	55	I	I	NA	NA	XII
911	BLACK GREASE	9-8	1700	55	I	I	NA	NA	XIII
912	BLACK GREASE	9-8	1701	55	I	I	NA	NA	XIV
913	YELLOW GREASE	9-8	1703	55	I	I	NA	NA	XV
914	YELLOW GREASE	9-8	1710	55	I	I	NA	NA	XVI
915	BLACK GREASE	9-8	1712	55	I	I	NA	NA	XVII
916	BLACK GREASE	9-8	1713	55	I	I	NA	NA	XVIII
917	BLACK GREASE	9-8	1714	55	I	I	NA	NA	XIX
918	BLACK GREASE	9-8	1717	55	I	I	NA	NA	X
919	BLACK GREASE	9-8	1720	55	I	I	NA	NA	XI
920	BROWN SOLID	9-8	1724	55	I	I	NA	NA	XII
		9-8	1729	55	I	I	NA	NA	XIII

**ORIGINAL**  
(Red)

29

SAMPLE NUMBER.	DESCRIPTION	TIME (min) & SIZE										VOL	SIGHT	H2O	HEX	PH PER OXIDON S <sup>2-</sup> Cl FLU	COMMENTS - (50g)
		F	1/2	1/4	1/8	1/16	1/32	1/64	1/128	1/256	1/512						
922	BLACK GREASE	F	1730	55												C222	50 PLENTY
923	BLACK GREASE	F	1735	55												C226	50 17-H PLENTY
924	NO SAMPLE (TRASH)	F	1737														
925	NO SAMPLE (TRASH)	F	1740														
926	GRAY SOLID	F	1745	55													
927	NO SAMPLE (TRASH)	F	1750														
928	BLUE-GREEN SOLID	F	1548	55												C226	50
929	BROWN SOLID	F	1545	55													R
930	NO SAMPLE (TRASH)	F	1543	55												C226	50 17-H
931	DARK BROWN GREASE	F	1537	55												C226	50 PLENTY
932	BLACK GREASE	F	1535	55												C226	50 17-E
933	BLACK GREASE	F	1533	55												C226	50 17-E PLENTY
934	NO SAMPLE (TRASH)	F	1530	55												C226	50 17-H
935	BLACK GREASE	F	1529	55												C226	50 17-E
936	GRAY SLIM	F	1526	55												C226	50 17-H PLENTY
937	BLACK SLUDGE	F	1524	55												C226	50 17-H
938	BLACK GREASE	F	1522	55												C226	50 17-E
939	NO SAMPLE (TRASH)	F	1520	55												C226	50 17-H
940	BLACK THE	F	1518	55												C226	50 17-H
941	BROWN LIQUID	F	1516	55												C226	50 17-E
942	BLACK GREASE	F	1516	55												C226	50 17-E PLENTY
943	BLACK GREASE	F	1514	55												C226	50 17-H
944	BLUE POWDER	F	1512	55												C226	50 17-E
945	BLACK GREASE	F	1510	55												C226	50 17-H
946	BROWN POWDER	F	1508	55												C226	50 17-H
947	YELLOW GREASE	F	1507	55												C226	50 17-H
948	NO SAMPLE (TRASH)	F	1508	55												C226	50 17-H
949	BROWN POWDER	F	1506	55												C226	50 17-H
950	BLACK GREASE	F	1504	55												C226	50 17-H
951	BROWN GREASE	F	1502	55												C226	50 17-H
952	NO SAMPLE (TRASH)	F	1500	55												C226	50 17-H
953	BLACK GREASE	F	1458	55												C226	50 17-H
954	RAINY MORN	F	1458	55												C226	50 17-H

ORIGINAL  
(Red)

SAMPLE NUMBER	DESCRIPTION	WEIGHT	TIME	TYPE	NO.	COMMENT	OWNER
955	BLACK GREASE	9.9	59	PS	17-H		
956	BLACK GREASE	9.8	1956	PS	17-H		
957	GRAN POWDER	9.8	1954	PS	17-H		
958	BLACK GREASE	9.8	1452	PS	17-H		
960	GRAY GREASE/CLEAR LIQUID	9.9	55	PS	17-H		
961	BLACK GREASE	9.9	55	PS	17-H		
962	BLACK BROWN GREASE	9.9	55	PS	17-H		
963	BROWN LIQUID	9.9	55	PS	17-H		
964	BLACK GREASE	9.9	55	PS	17-H		
965	BROWN GREASE	9.9	55	PS	17-H		
966	BROWN SOLID	9.9	30	PS	17-H		
967	BLACK TAR	9.9	44	PS	17-H		
968	BLACK TAR	9.9	44	PS	17-H		
969	BROWN GREASE	9.9	44	PS	17-H		
970	BROWN GREASE	9.9	55	PS	17-H		
971	BLACK SOLID	9.9	55	PS	17-H		
972	BLACK TAR	9.9	55	PS	17-H		
973	Brown Solid	9.9	55	PS	17-H		
974	Yellow Solid	9.9	55	PS	17-H		
975	WHITE SOLID	9.9	55	PS	17-H		
976	NO SAMPLE (CRASH)	9.9	55	PS	17-H		
977	BLACK GREASE	9.9	55	PS	17-H		
978	BROWN GREASE	9.9	55	PS	17-H		
979	NO SAMPLE	9.9	55	PS	17-H		
980	YELLOW SOLID	9.9	55	PS	17-H		
981	BLACK GREASE	9.9	55	PS	17-H		
982	NO SAMPLE (TRASH)	9.9	55	PS	17-H		
983	BROWN SOLID	9.9	55	PS	17-H		
984	BROWN SOLID	9.9	55	PS	17-H		
985	BROWN SOLID	9.9	55	PS	17-H		
986	BROWN SOLID	9.9	55	PS	17-H		
987	BROWN SOLID-BLUE SOLID	9.9	55	PS	17-H		
988	BROWN SOLID-BLUE SOLID	9.9	55	PS	17-H		

ORIGINAL  
(Red)

SAMPLE NUMBER	DESCRIPTION	ONE TIME REMOVED vol	TIME REMOVED min	H <sub>2</sub> O	HEX PICK UP PER 100 CM <sup>3</sup> OF PULP	COMMENTS	CROSS REFERENCE
					1	II	III
989	BROWN SOLID	9.9	55	I	C257	50	10
990	YELLOW-GRAY SOLID	9.9	54	I	C237	50 17-H - aged	H
991	BLACK GREASE	9.9	55	I	C237	50 17-H	H
992	BROWN SOLID	9.9	55	I	C237	50 17-H "brown solid"	H
993	BLACK TAR	9.9	55	I	C237	50 17-H "black tar"	H
994	GRAY SOLID	9.9	55	I	C237	50 17-H "gray solid"	H
995	NO SAMPLE (TRASH)	9.9	55	I	C238	120	I, H
996	GRAY SOLID	9.9	55	I	C238	50	H
997	GRAY SOLID	9.9	55	I	C238	50	H
998	Brown SOLID	9.9	55	I	C238	50	H
1001	YELLOW SOLID	9.9	55	I	C238	50	H
1002	BLACK OIL	9.9	55	I	C238	50	H
1003	BROWN SOLID	9.9	55	I	C238	50	H
1004	GRAY SOLID	9.9	55	I	C238	50	H
1005	GRAY SOLID	9.9	55	I	C238	50	H
1006	BROWN LIQUID	9.9	55	I	C238	50	H
1007	BLACK GREASE	9.9	55	I	C238	50	H
1008	BLACK GREASE	9.9	55	I	C238	50	H
1009	BLACK GREASE	9.9	55	I	C238	50	H
1010	GRAY SOLID	9.9	55	I	C238	50	H
1011	GRAY GREASE	9.9	55	I	C238	50	H
102	BLACK GREASE	9.9	55	I	C238	50	H
103	WHITE SOLID (BROWN LIQUID)	9.9	55	I	C238	50	H
104	NO SAMPLE (BROWN LIQUID)	9.9	55	I	C238	50	H
105	BLACK GREASE	9.9	55	I	C238	50	H
106	NO SAMPLE (BROWN LIQUID)	9.9	55	I	C238	50	H
107	YELLOW GREASE	9.9	55	I	C238	50	H
108	GRAY SOLID	9.9	55	I	C238	50	H
109	GRAY SOLID	9.9	55	I	C238	50	H
110	BLACK GREASE	9.9	55	I	C238	50	H
111	WHITE GREASE (BROWN LIQUID)	9.9	55	I	C238	50	H